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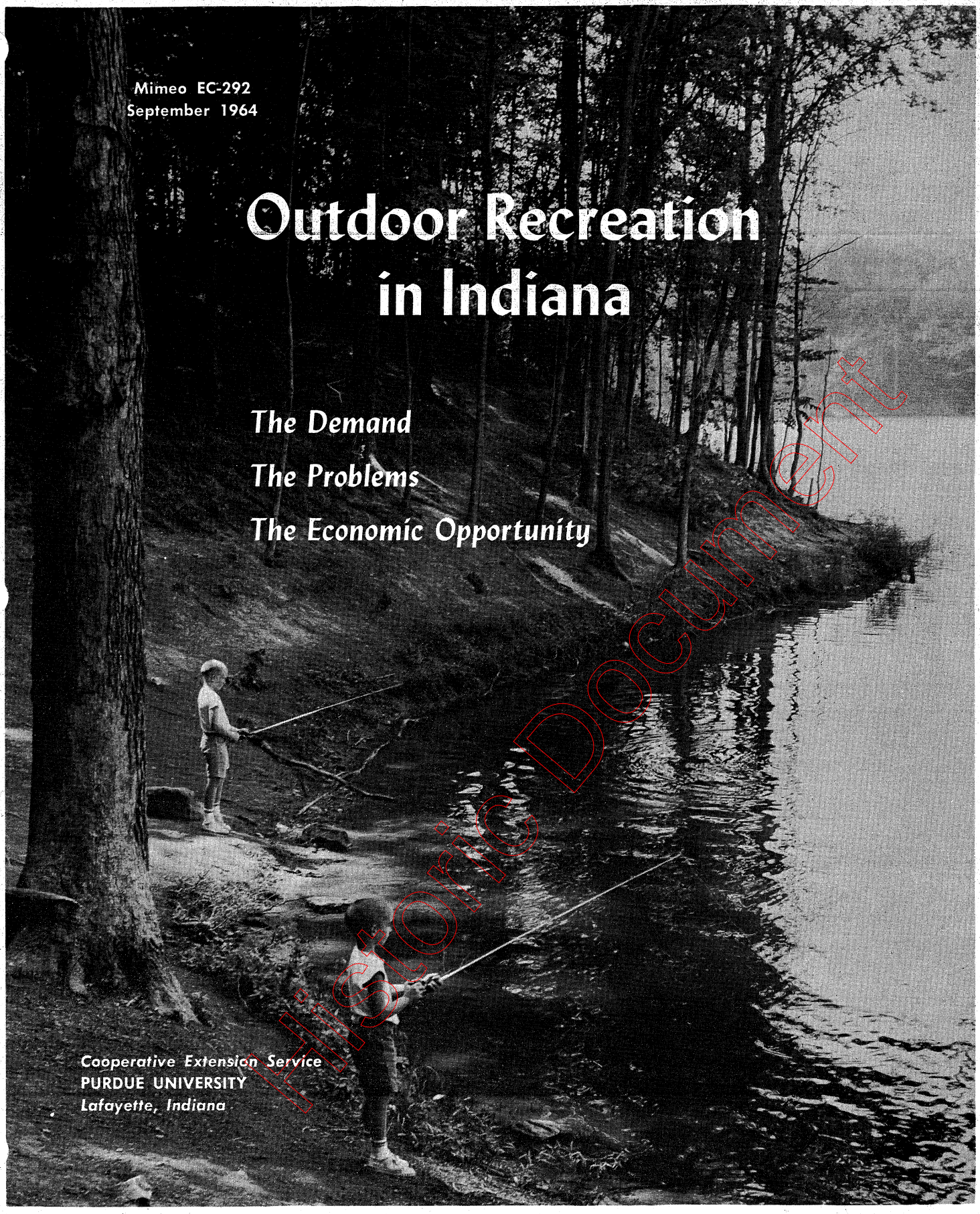
The Demand

The Problems

The Economic Opportunity



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OUTDOOR RECREATIONAL DEVELOPMENT IN INDIANA

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H. A. Wadsworth, Agricultural Economics

In the past, the public has assumed major responsibility for providing outdoor recreation. The reasons are quite logical: (1) the investments involved were large and (2) the public desired minimum fees. These conditions discouraged most private development. With a surging demand requiring a doubling of present recreation facilities, private as well as public developments would appear to be the most expeditious and economic means of closing the gap. The benefits of recreation are not confined to the relaxing and revitalizing of the human body. For many people, recreation can be their economic life blood.

Thus, an economic opportunity awaits those in rural areas who provide the space, facilities, and access where such enjoyment may be found. Earning potential, however, is not unlimited. The intent of this publication is to acquaint those considering various types of recreation as business ventures with the important factors determining success.

Outdoor Recreation

Many varied activities are included under the heading of outdoor recreation: hiking, nature walks, sightseeing, fishing, swimming, boating, water skiing, hunting, horseback riding, camping, ice skating, skiing, outdoor games and sports. For maximum enjoyment, most of these require relatively large areas of land not usually found within urban complexes. These activities are now engaged in at national and state parks and forests, Federal reservoirs, lakes, rivers, commercial establishments and on privately owned land.

Over-all, annual usage of public outdoor recreation facilities has been expanding at a rate of about 10 percent per year. User-oriented facilities, such as municipal parks that are close to large population centers, have had an annual rate of increase of about 5 percent (Table 1). The natural resource based activities found in our national parks and forests have attracted 9-12 percent more people annually despite the long distances most visitors must travel.

Outdoor recreation closer to home but still an hour's drive from most users has had the most rapid growth. Nationally, state park usage has risen about 8 percent per year, but activities around and on Corps of Engineers reservoirs have risen nearly 23 percent annually. This is exemplified by the attendance at the state recreation area on Mansfield Reservoir in Parke County. Since 1961, the first year of its existence, attendance has more than doubled each year. The Corps of Engineers estimate that more than half a million people visited Mansfield in 1963.

Table 1. Trends in use of public outdoor recreation areas.

Facility	% of annual increase
National forests	12
Federal wildlife refuges	12
National parks	9
State parks	8
Corps of Engineers reservoir	23
TVA reservoirs	12
Municipal and county parks	5

Source: ORRRC Study Report 24, Economic Studies of Outdoor Recreation, page 81.

Table 2. Estimated changes in factors influencing the demand for recreation in Indiana, 1964-74.

Factors	% change 1964-1974
Population	23
Per capita income	22
Vacation time	23
Intercity travel	36
Urban concentration	+
Shorter work week	+
Tendency to spend more on recreation	+

Source: Data obtained from Indiana Employment Security Division, State Board of Health, State Department of Commerce, and ORRRC reports.

Demand for Recreation

The demand for outdoor recreation will probably double in the next decade. Urban concentration, population growth, higher income, tendency to spend more on recreation, more leisure time and improved transportation are the responsible factors.

Over 62 percent of Indiana's population resided in urban areas in 1960. Further concentration is likely because of the changing nature and location of employment. As a result, the farm hand, who used to go to town for his entertainment, will be replaced by the suburbanite seeking rest and relaxation in the rural areas.

A recent projection of Indiana's population growth indicated an increase of 23 percent during the 1960's (Table 2). If this continues into the 1970's, our population would exceed 6 million people by 1974.

Average per capita income in Indiana was $2,565 in 1960. Projecting a 2 percent annual rate of increase, the per capita income will be approximately $3,385 in 1974. As a result total personal income will be nearly $21 billion by 1974. Also, more families are in the high income brackets, with more money available for recreation.

Increased participation in outdoor recreation can be expected as a result of shorter work weeks and longer paid vacations. In addition to the usual six paid holidays per year, paid vacations will probably average 2.7 weeks in length instead of the 2.2 current average. This means nearly 23 percent more vacation time for each Hoosier.

Improved transportation methods will encourage more travel. It was estimated by the Outdoor Recreation Resources Review Commission that intercity travel will increase two-thirds to 6,950 miles per capita by 1976. 1/ If such a change occurs proportionately through the years, total distance traveled by each citizen will be 36 percent greater than now. Certainly a large part of this travel will be in search of various forms of recreation.

The impact of these factors will probably result in a doubling of recreation activity of Hoosiers by the mid 1970's. However, the very factors that lead to such an increase also permit these people to travel outside the state in search of outdoor recreation, unless the desired types and kinds are developed at home.

Supply of Outdoor Recreation

The provision of outdoor recreation has generally been considered the responsi-

1/ Outdoor Recreation for America, A Report to the President and to the Congress by the Outdoor Recreation Resources Review Commission, January 1962, Washington, D.C.

Table 3. Acreage of state parks and visitation rates, United States and Indiana, 1960.

Item	U.S.	Indiana
Population	179,323,798	4,662,498
Acres, state parks	5,671,000	52,317
People per acre	31.6	89.1
Total visits	254,772,000	2,965,865
Visits per 1,000 population	1,421	636

Source: ORRRC "Outdoor Recreation for America" and Annual Reports of Indiana Department of Conservation, Division of State Parks.

Table 4. Availability of water for public recreation, United States and Indiana.

Item	United States	Indiana
Population 1960	179,323,798	4,662,498
Acres of water 1960	8,846,000[a/]	65,454[b/]
People per acre of water	20.3	71.2
Estimated population 1970		5,700,000
Acres of water 1970		83,139[c/]
People per acre of water 1970		68.6

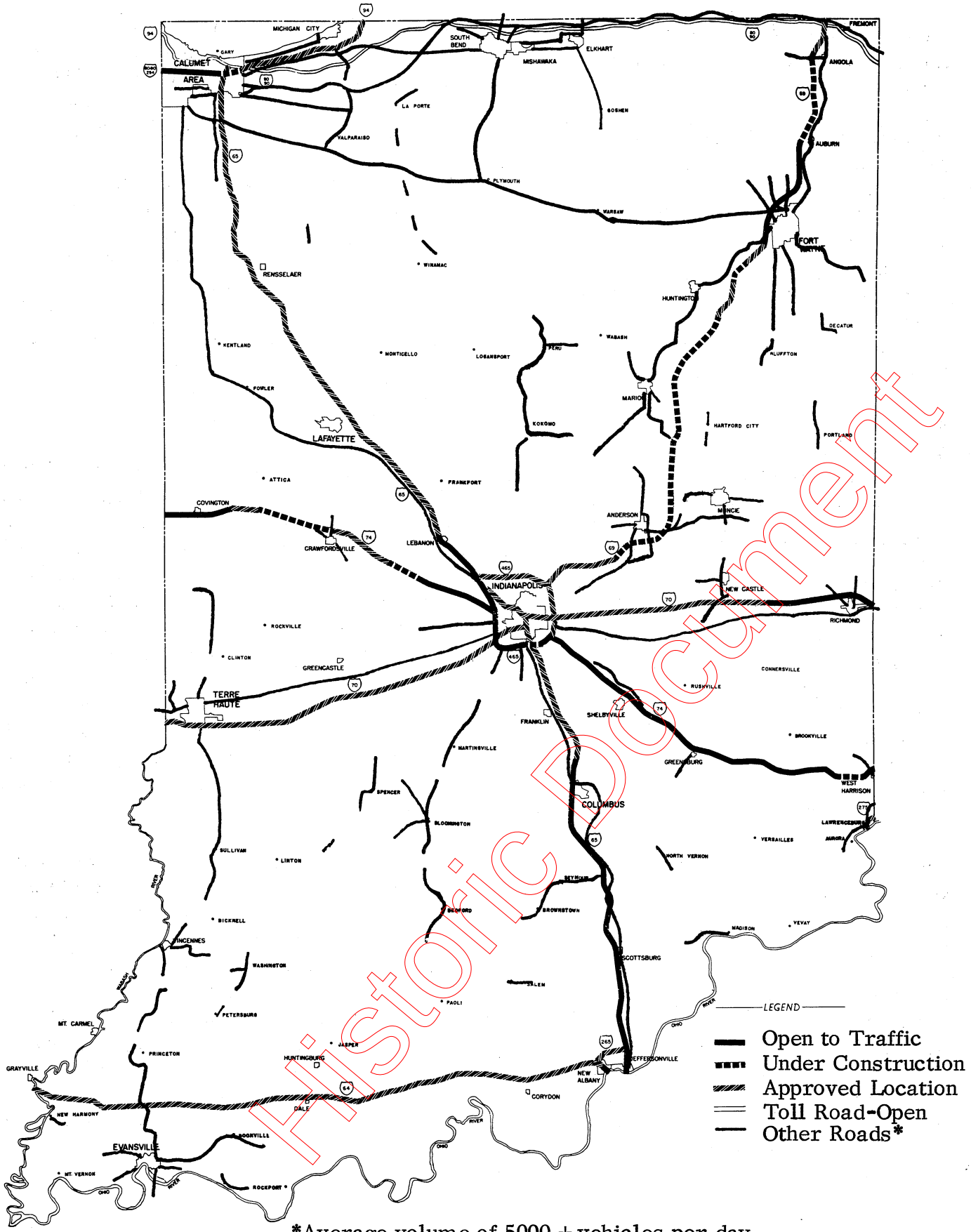
Source: ORRRC Study Report No. 1 and Guide to Indiana's Lakes, Indiana State Department of Conservation. a/ Water within exterior boundaries of areas, available for public recreation, under control of various agencies of government. b/ Includes acres of water in all Indiana lakes not specifically designated as private or pay lakes. Cataract Lake and Mansfield Reservoir are included but the portion of Lake Michigan within Indiana is not. c/ Includes acres of water shown in 1960 plus Monroe, Salamonie, Mississinewa and Huntington reservoirs.

bility of various levels of government. County or municipal parks have been created in many localities, and the State Department of Conservation has operated properties under its various divisions for use by the public.

State parks have provided large areas for all types of outdoor activities. Across the country, states have provided an acre of state park for about every 32 people (Table 3). In Indiana, less land is devoted to state parks with an acre for every 89 people. Indiana's parks are less intensively used as evidenced by a visitation rate of 636 per 1,000 population, compared with the national average of 1,421 visits per 1,000 people.

Within the United States there are about 9 million acres of water available for recreation (Table 4), or an acre of water for every 20 people. In Indiana, there are about 65,000 acres of water in all lakes not specifically designated as private and Corps of Engineers reservoirs. This provides an acre of water for every 71 people. With an estimated population of 5.7 million Hoosiers in 1970, the completion of the Monroe, Salamonie, Mississinewa and Huntington reservoirs will provide enough acreage to keep up with population growth but not to improve the man-water ratio.

Use of any outdoor recreational facility depends largely on the number of people in the area and the access provided to the recreation site. Many users will come from large metropolitan centers. Their prime consideration is travel time required to reach their destination. Past studies have shown this to be limited to an hour's drive or approximately 50 miles under most Indiana highway conditions. Heavily traveled routes which funnel large numbers of people into an area also increase the potential numbers of persons who might come to recreate. In



*Average volume of 5000 + vehicles per day.

Figure 1. Interstate highways in Indiana and other heavily traveled routes. */

particular, such highways with their greater traffic capacity favor recreational development located in that region as opposed to more inaccessible places. The interstate highway system will encourage greater travel along the routes and between the communities they serve (Figure 1). In addition, the location of presently heavily traveled routes also provides some indication of the use a recreational facility, either public or private, might expect.

While highways provide the access routes, their mission remains unfulfilled if recreation is not located near the people. In Figure 2, the state parks, state forests and completed or proposed reservoirs are mapped. Fifty-mile radii circles are also drawn around the main population centers. Chicago is the largest population area from which people might travel for search of recreation in Indiana. Within the 50-mile area of Chicago, there are only two state parks, one of which is devoted largely to fishing. A similar situation exists with respect to facilities in Indiana adjacent to the greater Cincinnati area. While many areas are apparently available to residents of Indianapolis and Marion county, they exist at the periphery of the travel zone. The other large municipal areas are more generously endowed with public facilities but are somewhat less densely populated. Such facilities may be extremely popular locally, but because of fewer potential customers, they have lower attendance rates.

Factors Determining Success

Location. Location is often the difference between success and failure in many businesses. Choice of site is as critical in successful recreational development as in any business that serves the public.

For instance, contrast the success between two gasoline filling stations, one located at the intersection of two main highways and the other at the junction of two county roads. What makes the difference? People do. In the first instance, many people pass the station and, though only a small percentage stop, the operator has a large business. In the latter case, the traffic by the country station is light and even if half the cars stop, his business would still be small.

Outdoor recreation possesses many of these same characteristics. People must travel to recreational spots. There are many places that offer outdoor recreational opportunities that might compete with your business. Under these circumstances, those businesses closest to a large population and on or adjacent to well-traveled highways seem to have the greatest chance of success. Recreation offered at some distance from areas of population concentration and off the beaten track must have some unique feature, if they hope to attract enough people to survive.

Recreational businesses catering to the public in Indiana are more likely to be successful if located within the high density population areas or on a major highway. Ventures not so located will have to rely on special attractions to draw travelers from their accustomed routes.

The Manager. The manager of a recreation enterprise is probably the most important single factor determining the success or failure of the business. The manager creates the atmosphere of his recreational facility, and recreationists search for places and conditions to which they can adjust easily. Therefore, the manager must not only recognize the recreation objectives and aspirations of his guests, but also must be able to meet and manage with tact and courtesy those people seeking recreational experiences.

Potential recreation managers need to analyze objectively their personal characteristics. The recreation manager must be adapted to and talented in the demands of operating

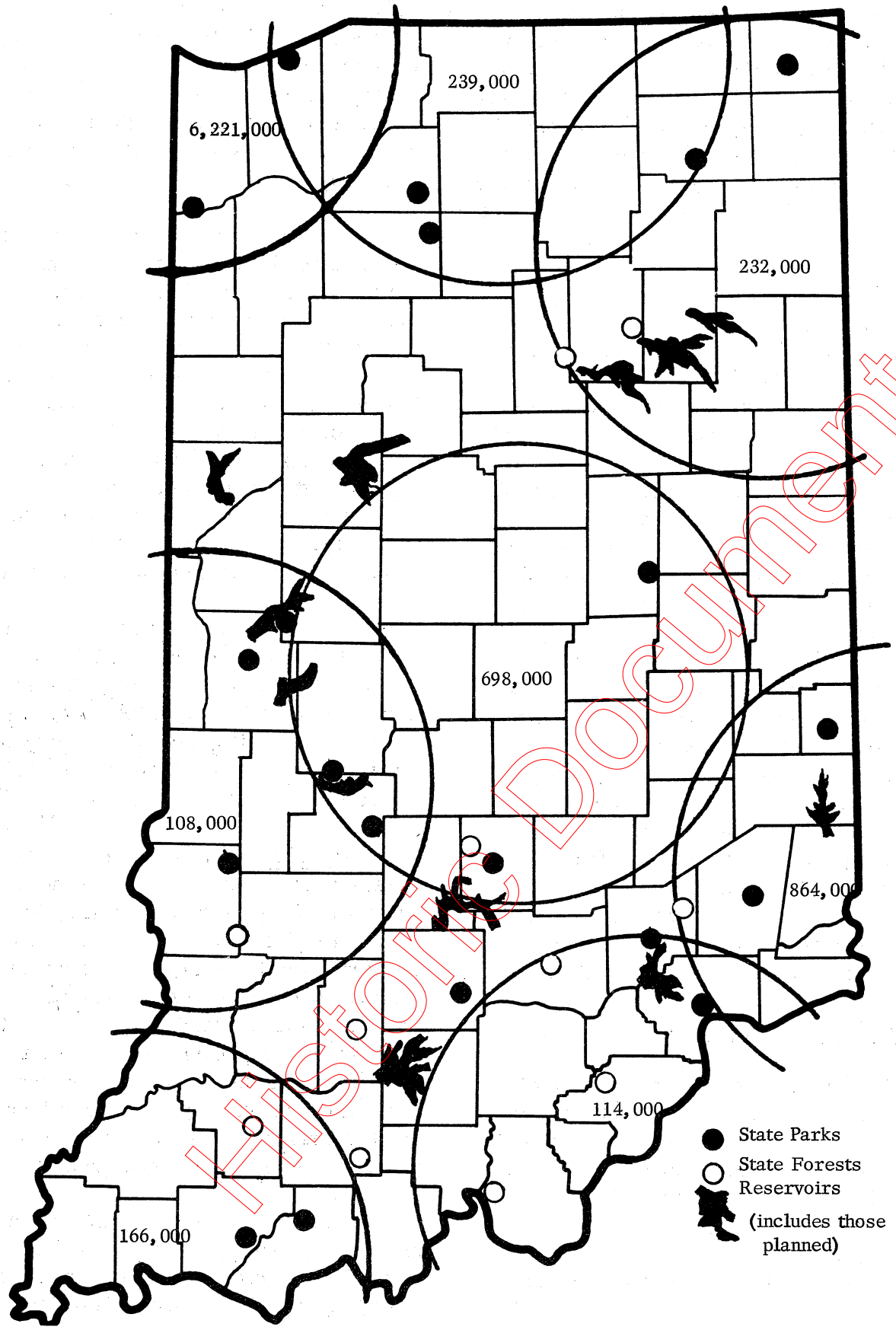


Figure 2. State parks and forests and Corps of Engineers reservoirs in Indiana within 50 miles of Metropolitan areas.

such a business. Serving the recreation public is often quite different from other forms of employment. A special kind of personality is required, since that is part of the product being sold. A friendly approach to strangers, tolerance of the peculiarities of customers, and an outgoing nature are the kinds of natural attributes that favor success in serving the public. A check list of attributes for potential recreation managers would certainly include:

1. Sociability
2. Verbal facility
3. Self confidence
4. Persistence and patience
5. Initiative and alertness
6. Knowledge of enterprise
7. Business ability

Managerial Requirements

Sanitary Needs. Anyone who supplies outdoor recreation to the public will generally have to provide space, water and a waste disposal system.

A clean potable water supply under pressure is a necessity. While a municipal water supply is most desirable, good wells do provide a satisfactory source. As a last resort, surface water can be used if proper treating techniques are used. The adequacy of your water system and the water quality should be checked by the State Board of Health.

Another sanitation problem is the disposal of food and other refuse. Water-tight receptacles should be dispersed throughout the area. These containers should be emptied daily and the contents hauled to a municipal dump, sanitary land fill, and buried or burned. Such precautions are necessary if effective fly and rodent control are expected. Good land drainage is also a must if a serious mosquito problem is to be avoided.

Although specific regulations are not enacted, the State Board of Health has established recommendations for sanitary facilities. Standards vary with the kind of recreation offered. For example, campgrounds operators may wish to construct sanitary stations, capable of handling wastes from sewage storage tanks now installed on many camping trailers, in addition to their usual rest room accomodations. Before erecting facilities, operators should check with local health officials and the State Board of Health as to type, number, and adequacy of the proposed installation.

Liability. Accidents occur. Anyone providing recreation assumes some liability. If fees are not involved, landowners are protected by Indiana law. If fees are charged, then the landowner is liable when his negligence results in injury to the user or damage to his personal property.

While most operators of such businesses take all precautions to insure the safety of their client, it is not likely that every eventuality would be covered. In such instances purchase of liability insurance is good business, since the costs are low relative to the settlements that might be involved.

The ordinary personal liability or farm owner's policy does not cover income-producing recreational facilities. Therefore, it is recommended that persons interested in starting a recreational enterprise obtain legal advice and the advice of a competent insurance man who will be able to assist the land-owner in determining potential risks and liabilities. 2/

2/ One informative publication on this topic is Liability and insurance protection for farmers who have income-producing recreational facilities. ERS-120, USDA, Washington, D. C. (1963). (free)

The operator also assumes liability for his employees. Many recreation businesses will be required to carry workmen's compensation insurance if part-time or full-time help is hired.

Taxes. Operating results of a recreation enterprise are subject to state and Federal income taxes as any normal business. Property taxes are also applicable. In addition, operators of such businesses who offer any tangible item for sale in Indiana in excess of 24 cents must collect the state sales tax.

This applies to concession stands, hunting preserves who charge on the basis of game shot, and pay fishing lakes where fish are sold on a per pound or per fish basis. If the proprietor charges only for the right to hunt or fish, he is not required to collect the sales tax. In the same manner, camp grounds, boat rentals, swimming beaches, etc., do not have to collect sales tax.

Outdoor Recreation Enterprises

Family Camping

One of the fastest growing segments of the recreation industry is family camping. Family campers are largely young middle-income families who seek vacation away from an urban environment. Nevertheless, they desire many of the costly conveniences of the city so that all family members will have ample opportunities to enjoy outdoor recreation.

An individual interested in serving this market should decide to enter this business only after carefully evaluating the attributes of his land for a camping enterprise. He must also decide whether the venture will be a bonafide full-time business during the camping season or a supplemental income or hobby project. In this latter case, the potential campsite provider must decide whether the bother and worry of such an enterprise will exceed the anticipated supplemental income and/or personal pleasure he may expect to receive. The number of campsites provided will be of little consequence in this situation.

However, if "adequate" financial reward is the motivating factor, much more thought and planning are advisable. Unless integrated with other recreational enterprises, about 100 campsites will be necessary for a campsite enterprise to be financially attractive. The amount of land and facilities required will depend on whether the investor intends to cater to transient (overnight) campers who have not yet reached their ultimate destination or to vacation campers who remain several days in one location. The transient campground must be located near main highways. The travelers using it will insist on well-equipped campsites and clean sanitary facilities. These campers are not too concerned about having things to do near the campsite. Eight or more campsites can usually be developed per acre, since facilities and accommodations tend to be simple and compactly arranged.

Table 5. Estimated investment and operating costs for a 100-unit private campground enterprise.

Investment	Dollars
Land	$2,500
Water supply	1,750
Roads	1,000
Sanitary facilities	3,000
Tables	1,000
Fireplaces	450
Playground equipment	300
Utility building	2,500
Operating equipment	500
	$13,000
Annual Operating Expenses	**Dollars**
Labor	$1,000
Advertising	100
Taxes	75
Insurance	75
Utilities	100
Miscellaneous	750
	$2,100

Vacation campgrounds, unlike transient campgrounds, do not need to be near major highways, particularly if near unique natural attractions such as lakes, streams, and forested areas. More things-to-do activities, such as swimming, boating, fishing, hiking, game fields, horseback riding, are required. Because of this and the need for more privacy, fewer campsites per unit of land can be developed, perhaps no more than four sites per acre on the average.

Investment and Operating Costs. The cash cost of establishing and maintaining a campground varies considerably depending on land costs, the amount of outside labor employed, and the quality of the facilities provided. Representative costs for establishing and operating a 100-unit campground enterprise are given in Table 5. However, actual investment costs are known to have exceeded $25,000 for a 100-unit private campground. As a rule of thumb, annual operating expenses can be estimated to be 10-15 percent of the total investment.

Net returns for camping enterprises after deducting all costs usually range between $1,000 and $1,500 for large, successful private campgrounds. Additional income can be realized from a camp stove and fees charged for boat rentals, pay lakes, horseback riding, and other recreational activities which may complement a vacation-type campground.

Camping Fees and Break-even Points. Private camping fees usually range from $1.00 to $3.00 per site per day. A simple breakeven chart (Table 6) indicates that as the fee charged rises, the number of customers needed to cover operating costs decline. However, the higher fees may discourage many potential customers. For example, if annual cash operating expenses are $2,000, then it is necessary that the enterprise be patronized for 1,000 camping unit days at $2.00 per day or 667 camping unit days at $3.00 per day just to recover these costs. For the fixed production inputs such as family labor, management, and capital investment to be compensated, attendance must be doubled since these "other" costs are about as much as the annual cash operating expenses. Thus, with total annual costs for a representative campground of about $4,000, over 2,000 camping unit days at $2.00 per day must be rented during the season before any profit is realized.

Table 6. Number of camper-family customers required in a season to produce revenue equivalent to annual cash operating expenses for several levels of operating expenses and camping fees.

Annual operating expenses ($)	Camping fee charged per night ($)		
	1.00	2.00	3.00
250	250	125	83
500	400	200	167
1,000	1,000	500	333
1,500	1,500	750	500
2,000	2,000	1,000	667
2,500	2,500	1,250	833

Pay Fishing

Except for swimming, outdoor games, driving for pleasure, and walking for pleasure, fishing is the most popular outdoor recreation in Indiana. Almost 14,000,000 days were spent fishing by Hoosiers in 1960. This is expected to increase to 20,000,000 days by 1980.

The opportunity to provide commercial fishing recreation in Indiana is almost entirely restricted to artifically developed lakes and ponds. Impoundments of various kinds including borrow pits and strip-mine pits can form the foundation of a business in which the privilege of catching fish is sold. To a lesser extent the streams, rivers and natural lakes

can be utilized as a basis for commercial development.

As with other types of commercial enterprises, success is often based on the number of potential customers, the ease with which the public can reach the location, and the skill of the business man in making his establishment one which will bring people back with their friends. Therefore, successful fee fishing businesses are generally located (1) no more than an hour's drive from an urbanized area, (2) accessible to good roads, and (3) in a pleasant environment with plenty of fish to provide a fair measure of success to even the most inexperienced nimrod.

To insure fishing success, these lakes are periodically stocked with large fish brought in by tanker truck. A fishing pond or lake can vary in size depending on the terrain and investment capital available for their construction. Ponds 1 acre and larger are used in Indiana. Two or more small lakes are generally considered to be superior to one large lake as this lends itself to the requirements of fishpond management, allows individual lakes to be stocked with different species of fish, and permits the fisherman a chance to change his "luck."

A fisherman ordinarily is not required to have an Indiana license while fishing from an artificially stocked pond located on private land. However, if the pond is fed or filled by a stream in flood stage, fishing licenses are legally required.

Investment and Operating Costs. Investments for fishing enterprises vary considerably and depend on terrain, land costs, lake size, and available Federal financial assistance which may be obtained in constructing the impoundment. On the average, actual construction costs can be expected to be from $1,500 to $2,500 for small ponds of several acres and $1,000 or more per acre or water surface for larger lakes of about 40 acres. Most owners of pay-fishing enterprises report investments of $10,000-$15,000 including the cost of land, pond construction costs, and a building from which refreshments and fishing supplies are sold. However, some operators report as much as a $30,000 investment while others report as little as $3,000. Annual operating costs are about 25 percent of total capital investment. Table 7 indicates the number of customers required for cash receipts to equal annual cash operating costs under given conditions. To cover the noncash costs of family labor, management, and capital investment, additional customers will be needed.

Table 7. Number of pay-fishing customers required to balance cash receipts with annual cash operating costs at several levels of cost and alternative fee charges.

Annual cash operating cost	By-the-pole fee		
	$0.50	$1.00	$1.50
	(number of customers)		
1,000	2,000	1,000	667
1,500	3,000	1,500	1,000
2,000	4,000	2,000	1,333
2,500	5,000	2,500	1,667
3,000	6,000	3,000	2,000

Fees and Expected Returns. Fishing fees may be collected as parking charges, so much per pound of fish caught, or on the basis of so much per pole. Fees charged range from $1.00 to $1.50 per pole. Fees collected on the basis of pounds of fish caught are subject to the state sales tax.

Net returns can be as much as $1,500 to $3,000 per season. However, net returns are more likely to be about $300 or less for the average fee fishing enterprise in Indiana. Additional revenue is often obtained from boat rentals and the sale of fishing supplies and food.

Swimming

Swimming is the most popular participation-type recreational activity in Indiana. It

is estimated that individuals went swimming over 18,000,000 times in outdoor pools, lakes, and streams in Indiana in 1960. This may even increase to over 25,000,000 occasions by 1980. As a result, there may be a number of commercial opportunities to provide swimming opportunities by building pools, lakes or by adapting existing impoundments for swimming purposes. Facts to consider in this area are:

Roads and the proximity of population concentrations are the most important criteria in deciding whether a swimming enterprise is financially attractive. An absence of large, naturally-clean surface water areas, municipal pools, and other public facilities nearby are also of considerable importance. However, even where natural water abounds, private ponds and lakes often provide less crowded space for swimmers, boaters, and water skiers which may be favored by many outdoor enthusiasts.

Private swimming places are used primarily by local people. Studies in other states report that about 90 percent of the customers lived within a 15-to 20-mile radius.

Landowners who contemplate providing swimming recreation for the public are advised to consult particularly with the Indiana State Board of Health regarding applicable laws and regulations. Adequate liability insurance and well-trained lifeguards are also essential.

Investments and Returns. Required investment varies with the type and elaborateness of the installation. However, an investment of $5,000-10,000 is considered typical when dam construction and development costs are included in the cost of a swimming lake development.

Swimming enterprises are frequently combined with other recreation alternatives such as picnicking, game fields, boating and fishing, making it difficult to separate joint costs and returns. While net incomes for most swimming enterprises are usually less than $1,000 per season, net incomes exceeding $5,000 have been reported.

Hunting Areas

Of the various outdoor recreational activities, hunting ranks about 9th in popularity in Indiana. The public spends twice as much time fishing as it does hunting. Nevertheless, hunting rights on lands supporting good game populations can be a marketable commodity sold to individual hunters or groups of sportsmen. Again, access to good roads and urban populations are important considerations in the attractiveness of hunting areas.

Game populations rarely, if ever, just happen. Thoughtful management and control of the environment is required to provide animals with food, cover, and water at all seasons of the year. In most instances this requires professional game management assistance and recommendations.

The advantages of this form of recreational enterprise are that it usually does not interfere with most farming operations and little additional expense is involved. It is also possible for a group of landowners to combine properties of limited acreage into a single marketable hunting area.

Disadvantages include the added liability associated with a somewhat hazardous sport and minimal returns which can be expected unless exceptional hunting opportunities are provided. Finally, all hunting must be carried out in conformity with Indiana's regulations pertaining to hunting season, bag limits, and hunting licenses.

Investment and Returns. Almost no direct out-of-pocket costs are associated with the leasing of hunting rights. Indirect costs include the nuisance value of having hunters on

a property and incidental damage which may occur to livestock fences and buildings. Title to wildlife is vested in the State. However, the landowner's right of control is firmly established. Therefore, the leasing of hunting rights (charging for the privilege of entering an individual's property to hunt) by landowners is a legal, feasible, and acceptable method of supplementing income on lands adaptable to the production of wild game as a crop. Historically, the selling of hunting rights has not been too common except for favored areas where deer and waterfowl are hunted. For example, less than 1 percent of the more than $1 billion annually spent in the United States by hunters goes for leases or hunting privileges.

As population and hunting pressures increase, it is logical to expect that the fees charged for leases and hunting privileges will increase, that is, if the hunters can be reasonably assured of shooting success.

Current practice is to charge anywhere from $2.00 per hunter day to several thousand per season when a restricted area is leased to a group of hunters. A cash income of $150-$300 is estimated to be attainable from renting hunting rights in those Indiana areas favorably located within easy driving distances of urban centers and naturally well-stocked with game animals.

Shooting Preserves

Regulated Shooting Preserves are one way of providing satisfactory and acceptable recreation for some hunters. These privately managed developments are stocked periodically with pen-raised game birds and are operated to provide hunting recreation for a fee.

The most successful shooting preserves are located within easy driving distances of large urban centers. About 90 percent of the hunters are from cities. They seek hunting opportunities in which there are reasonable guarantees of shooting success. They are willing to pay $25 or more per day for this privilege. It has been estimated that 2-3 percent of licensed hunters currently patronize shooting preserves.

Management is the key to success. The successful operator makes his paying guests feel welcome, has quality birds, good hunting cover, and a well-managed preserve convenient to large urban areas. This requires a large hunting area over which a number of hunters can be dispersed and released game birds recovered. (About 70 percent of the birds released are recovered in shooting preserves managed by successful operators).

Shooting preserves must be licensed annually in Indiana. The licensing fee is $100. Regulations require a preserve to consist of at least 200 but not more than 640 acres. An extended hunting season is permitted for put and take game from October 1 through March 31. Hunters are required to have Indiana hunting licenses, and special shooting preserve licenses are available for out-of-state hunters. The state does not regulate the bag limits for put and take game although all other game is subject to state hunting regulations. Operators may supplement income received from hunters by dressing birds killed by patrons, raising game birds for specialized consumer markets, leasing lands to sportsmans' organizations holding field trials in the non-hunting season, and by boarding hunting dogs.

Investment and Returns. Capital investments of $50,000 or more are fairly typical and may be considerably more than this where land values are high. Service buildings, machinery, pens for rearing and confining game birds are other significant capital items.

Table 8 portrays estimated investment and operating schedules for a typical operation. Assuming a daily hunting fee of $20, about 350 customers would be required annually to pay for the cash costs incurred by this hypothetical

Table 8. Estimated investment and cash operating costs for a regulated shooting preserve.

Investment	Dollars
Land	$30,000
Pens and buildings	5,000
Operating equipment and misc.	2,500
	$37,500
Annual operating expenses	**Dollars**
Birds and other supplies	$ 5,000
Labor	1,000
Advertising	250
Utilities	250
Taxes and licenses	300
Repairs	250
Insurance	150
	$ 7,200

Table 9. Customers required to produce revenue equivalent to annual cash operating expenses for several levels of operating expenses and daily hunting charges.

Annual operating expenses (dollars)	Daily hunting fee (dollars)			
	5	10	20	30
	Customers			
4,000	800	400	200	100
6,000	1,200	600	350	150
8,000	1,600	800	400	200
10,000	2,000	1,000	500	250
12,000	2,400	1,200	600	300

firm (Table 9). The number of customers needed to cover non-cash expenses would vary according to the amount of family labor and capital investment involved. Although net returns in excess of $7,500 have been reported, it would appear that combining all the essential land and business management factors may not be easy. Less than 50 percent of Indiana's shooting preserves are financially successful at this time. This is similar to reports from other Midwestern states.

Riding Stables

Riding stables provide horse enthusiasts (about 1 percent of the recreating public) and other recreationists with a challenging alternative opportunity for enjoying the out-of-doors and scenic trails. Most successful stables are located on well-traveled roads within 15-20 miles of a metropolitan area or adjacent to established outdoor recreation complexes.

A prime requirement for a successful riding stable is an owner who is willing to put in long hours, tolerate multitudes of insects, and shrug off the feed bills during those times of the year when few people ride.

Investment, Costs and Income. Capital investments of $15,000-$30,000 are not unusual for well-organized riding establishments. Land and horses are the two most important items of capital expense. In urban areas, land costs are normally high and may account for as much as 80 percent of the total investment. Other important capital costs include barns and riding equipment (Table 10).

Table 10. Estimated investment and operating costs for a riding stable.

Investment	Dollars
Land	$20,000
Land improvement	1,500
Buildings	1,500
Horses and operating equipment	5,000
	$28,000
Annual operating expenses	**Dollars**
Advertising	$ 100
Utilities	200
Feed and supplies	1,500
Repairs	200
Taxes	100
Insurance	500
Labor	1,000
	$ 3,600

Table 11. Hours of paid riding required to produce revenue equivalent to annual cash operating expenses for several levels of expense and hourly charges.

Annual operating expenses	Hourly charge (dollars) 1.00	1.50	2.00	2.50
	Paid Hours of Riding			
$2,000	2,000	1,333	1,000	800
2,500	2,500	1,667	1,250	1,000
3,000	3,000	2,000	1,500	1,200
3,500	3,500	2,333	1,750	1,400
$4,000	4,000	2,667	2,000	1,600

Feed and labor are the important items of annual operational cost. Another important item of annual cost is liability insurance. All commercial riding stables are well advised to carry liability insurance to be protected from possible judgments resulting from bodily-injury accidents. The magnitude of the dangers of horseback riding can be estimated from the high cost of liability insurance. Depending on location, insurance premiums range between $30 and $60 per horse for a single riding season.

Income can be obtained not only from renting horses at about $2.50 an hour, but also from boarding and training horses, providing riding lessons, and from furnishing guide service for groups of riders.

Unless the enterprise is located favorably with respect to potential customers and is carefully managed, riding stables may not be financially rewarding. If annual cash expense amounts to $3,000, 2,000 hours of riding at $1.50 per hour will be required to cover cash costs. (Table 11). Additional income will be needed to cover the non-cash costs of family labor, management, and capital invested in land, horses, and equipment.

Although net incomes in excess of $10,000 have been reported, net annual incomes of $2,000 to $3,000 represent the average in the Central States. This includes about 25 percent of the riding stables which lose money in any given year.

Combinations of Outdoor Recreation Enterprises

The most financially successful recreation businesses are ordinarily those providing a variety of recreational opportunities and/or services for their customers. In such cases, the owner has usually intensified his recreation business to the point where it is a major source of income with much of his labor and capital investment in it. A combination of labor extensive and labor intensive enterprises can increase receipts at little additional cost in labor and management time. A refreshment stand operated in conjunction with a pay fishing lake is one such example. In more complex recreational businesses, swimming, boating, fishing, rental cabins, restaurant, and picnicking can be operated by a single manager hiring seasonal labor as required.

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